cc: Levene

orig: MO

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

ER 89/955

Mr. Barry Levene
Enforcement Section
Superfund Remedial Branch
Hazardous Waste Management Division
Environmental Protection Agency
999 18th Street, Room 500
Denver, Colorado 80202-2405

Dear Mr. Levene:

In response to your request pursuant to our Interagency Agreement (IAG No. DW 14934113-0), the Department of the Interior has conducted a followup Preliminary Natural Resources Survey of the Burlington Northern (Somers Plant) site in Somers, Flathead County, Montana. This letter constitutes our summary report.

Our report is based on our review of available site information, including the Remedial Investigation and Feasibility Study (April 1989), the Record of Decision (September 1989), the Draft Statement of Work for Remedial Design and Remedial Action (November 1989), the Draft Consent Decree (November 1989), as well as review of other relevant reports and maps and an on site visit with the Confederated Salish and Kootenai Tribe (Tribe) Shoreline Protection Program staff.

We find that neither releases from the site or the site itself affect any minerals, endangered or threatened plants, or anadromous fish managed or protected by this Department. However, there is the potential for damage to lands, waters, migratory and endangered species of birds, and Indian resources.

Background

The Burlington Northern plant (BN-Somers) and associated facilities are located at Somers, Flathead County, Montana. The BN-Somers site occupies approximately 80 acres in the town of Somers, Montana. The site is located on the northwestern shoreline of Flathead Lake (Lake). Railroad ties and miscellaneous lumber products were treated with zinc chloride, chromated zinc chloride, and creosote/petroleum preservative mixtures at the plant. Available information indicates that wastewater containing creosote was discharged into a disposal lagoon which occasionally overflowed into a ditch and entered the Lake. Around 1945, the ditch was plugged and a pond formed in a natural marsh area which extends along the shoreline of the Lake. This pond became contaminated with creosote and slightly elevated levels of arsenic, nickel, and phenols. Fairly high levels of zinc, a substance potentially harmful to aquatic life and waterfowl, also have been found. In addition, concentrations of chromium, lead, and mercury, ranging from 100 to 200 g/l, have been found in soil at the plant site, but not in

the pond. The pond was excavated in 1985 as part of the Emergency Removal Action. Approximately 3000 cubic yards of material was removed from the pond and transported from the site. The pond was backfilled with clean gravel.

Relatively high concentrations of polynuclear aromatic hydrocarbons (PAHs) and zinc were also found in sediments from the site slough north of the plant site. Concentrations of arsenic, chromium, copper, and lead were not elevated in sediments collected from the site slough.

Given the geologic complexity of the site area, hazardous substances have probably moved in complex patterns along preferential flow paths. Therefore, the inferred extent of ground water contamination and corresponding soil contamination in the subsurface can only be considered a gross approximation of the actual area of contamination. The extent to which adjacent lands may have been affected by discharges from contaminated areas is unclear.

The U.S. Environmental Protection Agency, with concurrence of the State of Montana, has selected a response action to address contamination from the site by cleaning up soils, sediments, and ground water. The major features of the remedy include cleanup of soil contamination using on site biological treatment of excavated soils, and migration control and treatment of hazardous substances in ground water. Under the soil component of the selected remedy, approximately 11,700 cubic yards of soil will be excavated from the CERCLA lagoon, drip tank, drainage ditch, area beneath the retort building, and the site slough. The contaminated soil will be biologically treated on site in a lined 10-acre land treatment facility. The ground water component of the selected remedy includes operation of an innovative hot water flushing and water treatment system to remove and treat contamination from the water table aquifer in the CERCLA lagoon and the marsh area adjacent to the Lake.

Our Fish and Wildlife Service and Geological Survey have been working closely with the Environmental Protection Agency field staff during the Remedial Investigation and Feasibility Study, and we are pleased that the selected remedy provides for restoration or replacement of migratory bird habitats lost during emergency and remedial response actions.

Interior Trust Resources

The Department of the Interior's (DOI) Fish and Wildlife Service manages the Flathead Lake Waterfowl Production Area (WPA) at the north end of the Lake. Total area of the WPA is 2371 acres, of which 1700 acres is water or wetland habitat. The western boundary lies about 0.25 miles east of the marsh which formerly contained the contaminated pond.

A wide array of wildlife species use the area, including migratory birds. Canada geese are the primary breeding and wintering waterfowl using the area. During the 1988 spring brood survey, 101 goslings were counted on

the WPA. It is believed that some of these geese were hatched upriver and subsequently used the WPA for brooding. The north shore of the Lake is used as a spring and fall migratory staging area by 6,000 to 10,000 redhead ducks, 10,000 to 15,000 American coots, and over 100 tundra swans. In addition to waterfowl, the area is important to the bald eagle, osprey, and other raptors.

Threatened and endangered species in the area are the bald eagle and peregrine falcon. There are three active bald eagle breeding territories within 6.5 miles of the BN-Somers site. Bald eagles also use the area during winter, spring, and fall. Peregrine falcons may occur in the area as migrants.

DOI's Bureau of Indian Affairs (BIA) has a trust responsibility to protect the natural resources of the Tribe. These resources include the southern half of the Lake and the fishery that exists in the Lake. In addition, the Tribe possesses extensive off-reservation hunting and fishing rights pursuant to the Hellgate Treaty of 1855.

The BIA and Tribe are extremely interested in ensuring the isolation of the contaminated "swamp pond area" from the Lake ecosystem. This interest stems from their co-management responsibilities to protect and manage the fish and wildlife resources associated with the Lake ecosystem.

Past Impacts

No direct effects (i.e., mortality) on migratory birds, including threatened or endangered species, have been documented in relation to hazardous substances at the BN-Somers Plant Superfund site. However, it is known that a pond formed in the marsh adjacent to the Lake as a result of the discharge of oily wastewater containing creosote sometime prior to 1946. As noted above, there is extensive use of the area by migratory birds. It is probable that during the 40 plus years of the pond's existence, exposure of migratory birds to creosote occurred in the marsh adjacent to the Lake.

In addition, wetland habitat for migratory birds was lost as a result of excavation of 60,500 square feet (approximately 1.5 acres) of the "swamp pond area" during the 1985 Emergency Removal Action. Additional disturbance of wetland habitat in this area occurred in 1985, as a result of providing access for excavation equipment, placement of riprap along the lakeshore, and subsequent excavation of contaminated beach sediment. Our preliminary survey indicates that 3-5 acres of wetland habitat were impacted to some degree as a result of the Emergency Removal Action.

Potential Future Impacts

Impacts to trust resources may result from the on site biological land treatment of excavated soil. First, any standing water (even small puddles) caused by rainfall or management activities on the treatment facility could attract waterbirds. If the standing water attracted

breeding waterbirds, PAHs associated with creosote could be transferred from the birds' feet or feathers to their eggs. PAHs are known to be toxic to mallard embryos at extremely low concentrations. Secondly, even if the land treatment facility is managed to prevent the occurrence of standing water, the soil aeration and tilling practices at the facility may be an attractive nuisance to ring-billed and/or California gulls. This scenario would pose a direct hazard to breeding gulls. Also, since gulls prey upon eggs of other waterbird species, an unusually high concentration of gulls in the area may adversely impact the reproductive success of other waterbirds nesting in the vicinity of the site.

Implementation of the proposed excavation aspect of the soil component of the selected remedy will adversely impact wetland habitats associated with the drainage ditch and the site slough. Also, the installation and operation of the ground water treatment system in the "swamp pond area" may cause additional loss or degradation of wetland habitat. Monitoring and timely documentation during the implementation of remedial actions will be required in order to minimize impacts, evaluate residual damage, and determine additional restoration and/or replacement needed.

Standing water, contaminated soil, and contaminated ground water could potentially impact trust resources of the Tribe. Of particular concern is the ground water treatment system in the "swamp pond area". Since the Tribe is extremely concerned about the water quality of the Lake and ground water occurring on their reservation, the BIA and Tribe should be involved in the monitoring evaluation of this treatment system.

Based on our site inspection, it appears that initial shoreline riprapping of the beach between the "swamp pond area" and the Lake was insufficient. Shoreline erosion is presently threatening to destroy the narrow strip of land that is serving to isolate the contamination present in the "swamp pond area" from the Lake. If nothing is done to protect this natural buffer from the pervasive erosion taking place, the hazardous substances in this area may soon come into direct contact with the Lake. Additional riprapping or comparable protective measures for this beach area are warranted.

Considering the innovative nature of the groundwater treatment components of the remedy and the possibility that contingency remedies involving additional soil excavation may be required, remedial actions that have the potential to impact our trust resources should be designed, implemented, and monitored in consultation with representatives of the DOI.

We are pleased that Contingency Remedies A and B now require on site treatment of contaminated soils. The Tribe has consistently opposed any off-site treatment activities at the BN-Somers facility in Paradise in order to avoid the possibility of any hazardous substances being hauled across reservation lands. Any remedial action that includes transportation of hazardous substances across reservation lands would be unacceptable to the Tribe.

Position on a Covenant not to Sue

The response actions as outlined in the Record of Decision for the BN-Somers site are designed to alleviate threats to our trust resources posed by contaminated soils and ground water. The selected remedy appears to eliminate the potential for direct contaminant damage to our wildlife trust resources at the site, and provides for restoration or replacement of migratory bird habitats lost during emergency and remedial response actions. However, there is potential for adverse impacts to Indian trust resources and migratory birds from continuing erosion at the north end of the Lake and exposure of migratory birds to hazardous substances during implementation of the remedy. Therefore, we have some concerns pertaining to assurances of future protection of trust resources at the site.

Although the Record of Decision and Draft Statement of Work require restoration and/or replacement of wetlands, no specific plans have yet been developed. Accordingly, we cannot agree to a covenant not to sue for damages to natural resources at this time. If, however, through the negotiation of a Consent Decree for this site, the Responsible Party agrees to take appropriate actions to protect existing natural resources and restore damaged natural resources and establish satisfactory monitoring procedures, we would be willing to reconsider this position.

The following conditions need to be incorporated into the Consent Decree and/or its accompanying Work Plan.

1. The Consent Decree should include specific objectives and commitments for wetland replacement and/or restoration, and these objectives should be incorporated into a Wetland Mitigation Plan that would be a component of the Remedial Design and Remedial Action Work Plan. The Consent Decree should state that the goal of restoration for migratory bird habitat is to insure that no net loss of wetland values (both physical and chemical) will occur as a result of past damages or proposed cleanup actions at the site, as specified in the Work Plan. The Consent Decree also should provide for the payment of funds to be used over time by the agency managing the restored wetlands for maintenance of the land as a public trust.

2. The Work Plan for the Remedial Design and Remedial Action should establish specific procedures for quantifying the required wetland restoration acreage; identifying suitable acreage in the Flathead Valley; developing a formal wetland mitigation plan that meets the approval of representatives from the DOI and the State of Montana; identifying the appropriate agency to which the restored wetlands will be conveyed; developing a long term management plan for the purpose of protecting and preserving the restored natural resources for the public; establishing a schedule for accomplishing tasks associated with wetland restoration; and developing criteria for determining when the wetland mitigation has been successfully completed.

3. Specific measures to discourage bird use at the land treatment facility and avoid and/or mitigate unexpected occurrences of contamination or disturbance of wetland habitats should be included in the Work Plan.

4. Additional riprapping or comparable measures to protect the shoreline of the Lake and effectively isolate the "swamp pond area" from the Lake should be specifically outlined in the Work Plan.

5. The Department of the Interior, through the U.S. Fish and Wildlife Service and the Bureau of Indian Affairs, should be involved in the design, implementation, and monitoring of the selected remedy, and be afforded the opportunity to:

   a. Review and comment on subsequent documents prepared pursuant to the Work Plan,

   b. Participate in the 5-year remedy review process to assure that the remedy continues to provide adequate protection of the environment, and

   c. Approve any changes in the Work Plan that may relate to or affect our wildlife or Indian trust resources.

If these provisions to provide for future protection and/or restoration of Flathead Lake and wildlife resources associated with the site are incorporated into the Work Plan and Consent Decree, we would be prepared to agree to a covenant not to sue for damages to natural resources under our trusteeship.

Our Departmental contact for this site is Mr. Robert F. Stewart, Regional Environmental Officer, P.O. Box 25007 (D-108), Denver Federal Center, Building 56, Room 1018, Denver, Colorado 80225. He can be reached at (303) 236-6900 (FTS 776-6900).

Sincerely,

Jonathan P. Deason
Director
Office of Environmental Affairs

cc: EPA/Montana Office, Helena
FWS/Denver
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